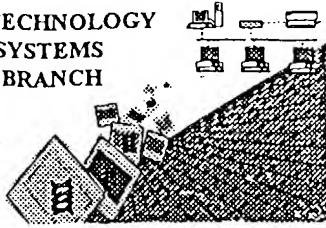


BIOTECHNOLOGY
SYSTEMS
BRANCH



RAW SEQUENCE LISTING
ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/669,162 A
Source: 1/FW0
Date Processed by STIC: 5/7/04

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT
MARK SPENCER, TELEPHONE: 703-308-4212; FAX: 703-308-4221

Effective 12/13/03: TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 4.1 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker/chkr41note.htm>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

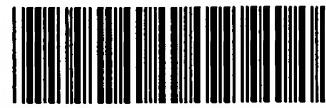
Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<http://www.uspto.gov/ebc/efs/downloads/documents.htm>), EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. Hand Carry directly to (EFFECTIVE 12/01/03):
U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202
4. Federal Express, United Parcel Service, or other delivery service to: U.S. Patent and Trademark Office, Box Sequence, Room 1B03-Mailroom, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202

Revised 10/08/03

Raw Sequence Listing Error Summary

<u>ERROR DETECTED</u>	<u>SUGGESTED CORRECTION</u>	<u>SERIAL NUMBER:</u> <u>10/669,162A</u>
ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE		
1 <input type="checkbox"/> Wrapped Nucleic Wrapped Aminos	The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."	
2 <input type="checkbox"/> Invalid Line Length	The rules require that a line not exceed 72 characters in length. This includes white spaces.	
3 <input type="checkbox"/> Misaligned Amino Numbering	The numbering under each 5 th amino acid is misaligned. Do not use tab codes between numbers; use space characters , instead.	
4 <input type="checkbox"/> Non-ASCII	The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.	
5 <input checked="" type="checkbox"/> Variable Length	Sequence(s) <u>6,7,8,9, maybe more</u> contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.	
6 <input type="checkbox"/> PatentIn 2.0 "bug"	A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) <u> </u> . Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.	
7 <input type="checkbox"/> Skipped Sequences (OLD RULES)	Sequence(s) <u> </u> missing. If intentional, please insert the following lines for each skipped sequence: (2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) (i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading) (xi) SEQUENCE DESCRIPTION: SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) This sequence is intentionally skipped	
	Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.	
8 <input type="checkbox"/> Skipped Sequences (NEW RULES)	Sequence(s) <u> </u> missing. If intentional, please insert the following lines for each skipped sequence. <210> sequence id number <400> sequence id number 000	
9 <input type="checkbox"/> Use of n's or Xaa's (NEW RULES)	Use of n's and/or Xaa's have been detected in the Sequence Listing. Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present. In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.	
10 <input type="checkbox"/> Invalid <213> Response	Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence	
11 <input type="checkbox"/> Use of <220>	Sequence(s) <u> </u> missing the <220> "Feature" and associated numeric identifiers and responses. Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section. (See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)	
12 <input type="checkbox"/> PatentIn 2.0 "bug"	Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.	
13 <input type="checkbox"/> Misuse of n/Xaa	"n" can only represent a single <u>nucleotide</u> ; "Xaa" can only represent a single <u>amino acid</u>	



IFW

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/669,162A

DATE: 05/07/2004
TIME: 14:10:39

Input Set : A:\250060016U2.txt
Output Set: N:\CRF4\05072004\J669162A.raw

3 <110> APPLICANT: Breaker, Ronald R.
 4 Nahvi, Ali
 5 Sudarsan, Narasimhan
 6 Ebert, Margaret S.
 7 Winkler, Wade
 8 Barrick, Jeffrey E.
 9 Wickiser, John K.
 11 <120> TITLE OF INVENTION: RIBOSWITCHES, METHODS FOR THEIR USE, AND
 12 COMPOSITIONS FOR USE WITH RIBOSWITCHES
 14 <130> FILE REFERENCE: 25006.0016U2
 16 <140> CURRENT APPLICATION NUMBER: 10/669,162A
 17 <141> CURRENT FILING DATE: 2003-09-22
 19 <150> PRIOR APPLICATION NUMBER: 60/412,468
 20 <151> PRIOR FILING DATE: 2002-09-20
 22 <160> NUMBER OF SEQ ID NOS: 377
 24 <170> SOFTWARE: FastSEQ for Windows Version 4.0
 26 <210> SEQ ID NO: 1
 27 <211> LENGTH: 202
 28 <212> TYPE: RNA
 29 <213> ORGANISM: Escherichia coli
 31 <400> SEQUENCE: 1
 32 gccgguccug ugaguuaaua gggaauccag ugcgaaucug gagcugacgc gcagcguaa 60
 33 gcaaaggugc gaugauugcg uuaugcggac acugccauuc ggugggaagu caucaucucu 120
 34 uaguaucuuua gauaccccuc caagccccaa gaccugccgg ccaacgucgc aucugguucu 180
 35 caucaucgcg uaauauugau ga 202
 37 <210> SEQ ID NO: 2
 38 <211> LENGTH: 165
 39 <212> TYPE: RNA
 40 <213> ORGANISM: Escherichia coli
 42 <220> FEATURE:
 43 <221> NAME/KEY: misc_feature
 44 <222> LOCATION: 155
 45 <223> OTHER INFORMATION: r = a or g
 47 <220> FEATURE:
 48 <221> NAME/KEY: misc_feature *u only. + cannot appear in an RNA sequence.*
 49 <222> LOCATION: 157
 50 <223> OTHER INFORMATION: y = c or t/u
 52 <400> SEQUENCE: 2
 53 ggaacccaaac gacucggggu gcccucugc guaaggcug agaaaauaccc guaucaccug 60
 54 aucuggauaa ugccagcgua gggaaagucac ggaccaccag gucauugcuu cuucacguua 120
 55 uggcaggagc aaacuaugca agucgaccug cuggruy'cag cgcaa 165
 57 <210> SEQ ID NO: 3
 58 <211> LENGTH: 240

pp 1-7

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/669,162A

DATE: 05/07/2004
TIME: 14:10:39

Input Set : A:\250060016U2.txt
Output Set: N:\CRF4\05072004\J669162A.raw

59 <212> TYPE: RNA
 60 <213> ORGANISM: Escherichia coli
 62 <220> FEATURE:
 63 <221> NAME/KEY: misc_feature
 64 <222> LOCATION: (155)...(240) *LL*
 65 <223> OTHER INFORMATION: n = g, a, c, or t/u
 67 <400> SEQUENCE: 3
 68 ggaaugcccc auuuggggg cuauuuucuu gucggagugc cuuaacuggc ugagaccguu 60
 69 uauucgggau ccgcggacc ugaucaggcu aauaccugcg aagggaacaa gaguuaaucu 120
 -> 70 gcuaucgcau cgccccugcg gcgaucgucu cuugnnnnnn nnnnnnnnnn nnnnnnnnnn 180
 71 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 240
 73 <210> SEQ ID NO: 4
 74 <211> LENGTH: 165
 75 <212> TYPE: RNA
 76 <213> ORGANISM: Escherichia coli
 78 <220> FEATURE:
 79 <221> NAME/KEY: misc_feature
 80 <222> LOCATION: 65, 74, 107, 130
 81 <223> OTHER INFORMATION: s = g or c
 83 <220> FEATURE:
 84 <221> NAME/KEY: misc_feature
 85 <222> LOCATION: 25, 26, 34, 35, 64, 75, 106, 131
 86 <223> OTHER INFORMATION: w = a or t/u *u*
 88 <400> SEQUENCE: 4
 89 ggaaccaaac gacucggggu gcccwwcugc gugwwggcug agaaaauaccc guaucaccug 60
 90 aucwsauaa ugcswgcguu gggaaagucac ggaccaccag gucauwscuu cuucacguua 120
 91 uggcaggags waacuaugca agucgaccug cuggauccag cgcaa 165
 93 <210> SEQ ID NO: 5
 94 <211> LENGTH: 176
 95 <212> TYPE: RNA
 96 <213> ORGANISM: Artificial Sequence
 98 <220> FEATURE:
 99 <223> OTHER INFORMATION: Description of Artificial Sequence:/Note =
 100 synthetic construct
 102 <220> FEATURE:
 103 <221> NAME/KEY: misc_feature *u*
 104 <222> LOCATION: (39)...(156)
 105 <223> OTHER INFORMATION: n = g, a, c or t/u
 107 <400> SEQUENCE: 5
 -> 108 ggauauaagc cguaggugc gaaagcgacc cugaguagnn nnnnncaaga gaagcagagg 60
 109 gacuggcccg acgaagcuuc agcaaccggu guaauggcga ucagccauga ccaaggugcu 120
 110 aaauccagca agcucgaaca gcuuggaagn nnnnnncgaa acgguagcga gagcuc 176
 113 <210> SEQ ID NO: 6
 114 <211> LENGTH: 97
 115 <212> TYPE: RNA
 116 <213> ORGANISM: Artificial Sequence
 118 <220> FEATURE:
 119 <223> OTHER INFORMATION: Description of Artificial Sequence:/Note =
 120 synthetic construct

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/669,162A

DATE: 05/07/2004
TIME: 14:10:39

Input Set : A:\250060016U2.txt
Output Set: N:\CRF4\05072004\J669162A.raw

122 <220> FEATURE:
 123 <221> NAME/KEY: misc_feature
 124 <222> LOCATION: 1, 6, 26, 58, 66, 76, 97
 125 <223> OTHER INFORMATION: n = a variable number of any nucleotide
 127 <220> FEATURE:
 128 <221> NAME/KEY: misc feature
 129 <222> LOCATION: 5, 7, 8, 11, 12, 18-20, 24, 25, 29, 30, 33-35, 38, 40, 41,
 130 47, 50, 54-56, 59, 60, 75, 77-79, 85, 89, 93
 131 <223> OTHER INFORMATION: n = g, a, c or t/u *u*
 133 <220> FEATURE:
 134 <221> NAME/KEY: misc_feature
 135 <222> LOCATION: 27, 36, 48, 53, 57, 80, 87
 136 <223> OTHER INFORMATION: r = a or g
 138 <220> FEATURE:
 139 <221> NAME/KEY: misc_feature
 140 <222> LOCATION: 67, 83
 141 <223> OTHER INFORMATION: y = c or t/u *u*
 143 <400> SEQUENCE: 6
 -> 144 nggunnnnaa nnggaaannn ggunnnrannn ccnnn[cngn nccgc[n]cn gu[nnn]nnn 60
 145 cacugnyggg aaggnnnnnr agycngrana ccngccn 97
 147 <210> SEQ ID NO: 7
 148 <211> LENGTH: 56
 149 <212> TYPE: RNA
 150 <213> ORGANISM: Artificial Sequence
 152 <220> FEATURE:
 153 <223> OTHER INFORMATION: Description of Artificial Sequence:/Note =
 154 synthetic construct
 156 <220> FEATURE:
 157 <221> NAME/KEY: misc_feature *u*
 158 <222> LOCATION: 7, 50
 159 <223> OTHER INFORMATION: d = g, a or t/u *u*
 161 <220> FEATURE:
 162 <221> NAME/KEY: misc_feature
 163 <222> LOCATION: 1, 8, 15, 36, 56
 164 <223> OTHER INFORMATION: n = a variable number of any nucleotide
 166 <220> FEATURE:
 167 <221> NAME/KEY: misc_feature
 168 <222> LOCATION: 2-5, 17-20, 21-24, 30-34, 38-40, 41-43, 45-47
 169 <223> OTHER INFORMATION: n = g, a, c or t/u *u*
 171 <220> FEATURE:
 172 <221> NAME/KEY: misc_feature
 173 <222> LOCATION: 54
 174 <223> OTHER INFORMATION: r = a or g
 177 <400> SEQUENCE: 7
 -> 178 nnnnngdncu gaganannnn nnnnaccugn nnnncnunnn nnngnnncgd aggran 56
 180 <210> SEQ ID NO: 8
 181 <211> LENGTH: 97
 182 <212> TYPE: RNA
 183 <213> ORGANISM: Artificial Sequence

variable length not permitted
(see item 5 on
Error
summary
sheet)

see item 5 on Error summary
sheet

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/669,162A

DATE: 05/07/2004
TIME: 14:10:39

Input Set : A:\250060016U2.txt
Output Set: N:\CRF4\05072004\J669162A.raw

185 <220> FEATURE:
 186 <223> OTHER INFORMATION: Description of Artificial Sequence:/Note =
 187 synthetic construct
 189 <220> FEATURE:
 190 <221> NAME/KEY: misc_feature *M*
 191 <222> LOCATION: 57, 62
 192 <223> OTHER INFORMATION: k = g or *t/u* *item 5*
 194 <220> FEATURE:
 195 <221> NAME/KEY: misc_feature
 196 <222> LOCATION: 37, 47
 197 <223> OTHER INFORMATION: n = *a variable number of any nucleotide*
 199 <220> FEATURE:
 200 <221> NAME/KEY: misc_feature
 201 <222> LOCATION: 11, 17, 20, 28, 36, 46, 48, 58, 61, 77-79
 202 <223> OTHER INFORMATION: n = g, a, c or *t/u* *M*
 204 <220> FEATURE:
 205 <221> NAME/KEY: misc_feature
 206 <222> LOCATION: 6, 35, 43, 54, 59, 65-68, 74, 90, 91, 95-97
 207 <223> OTHER INFORMATION: r = a or g
 209 <220> FEATURE:
 210 <221> NAME/KEY: misc_feature
 211 <222> LOCATION: 1-3, 15, 31, 40, 44, 51-53, 64, 84
 212 <223> OTHER INFORMATION: y = c or *t/u* *M*
 214 <400> SEQUENCE: 8
 -> 215 *yyyucrgggc ngggygnaan ucccnaccgg yggurnnagy ccrygnnnga yyyrguknra* 60
 216 nkcyrrrrcc gacrgunnna gucyggaugr ragarrr 97
 218 <210> SEQ ID NO: 9
 219 <211> LENGTH: 86
 220 <212> TYPE: *RNA*
 221 <213> ORGANISM: Artificial Sequence
 223 <220> FEATURE:
 224 <223> OTHER INFORMATION: Description of Artificial Sequence:/Note =
 225 synthetic construct
 227 <220> FEATURE:
 228 <221> NAME/KEY: misc_feature *item 5*
 229 <222> LOCATION: 52, 72
 230 <223> OTHER INFORMATION: n = *a variable number of any nucleotide*
 232 <220> FEATURE:
 233 <221> NAME/KEY: misc_feature
 234 <222> LOCATION: 1, 7-9, 11, 14, 16, 18, 25, 26, 32, 33, 37, 39, 42, 43, 50,
 235 51, 53-55, 62, 63, 66-69, 71, 73, 75, 76, 78, 79, 86
 236 <223> OTHER INFORMATION: n = g, a, c or *t/u* *M*
 238 <220> FEATURE:
 239 <221> NAME/KEY: misc_feature / /
 240 <222> LOCATION: 38, 44, 70, 77, 88
 241 <223> OTHER INFORMATION: r = a or g
 243 <220> FEATURE:
 244 <221> NAME/KEY: misc_feature
 245 <222> LOCATION: 17, 34, 60, 74

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/669,162A

DATE: 05/07/2004
TIME: 14:10:39

Input Set : A:\250060016U2.txt
Output Set: N:\CRF4\05072004\J669162A.raw

246 <223> OTHER INFORMATION: y = c or (t/u) M
248 <400> SEQUENCE: 9
-> 249 ncuuaunnnng agnngnynga gggannggcc cnnyganinc cnrncgcaacn nnnnngugcy 60
250 annccnnnnr nnnynnrnng aupagn 86
252 <210> SEQ ID NO: 10
253 <211> LENGTH: 69
254 <212> TYPE: (RNA)
255 <213> ORGANISM: Artificial Sequence
257 <220> FEATURE:
258 <223> OTHER INFORMATION: Description of Artificial Sequence:/Note =
259 synthetic construct
261 <220> FEATURE:
262 <221> NAME/KEY: misc_feature
263 <222> LOCATION: 1, 2, 10-17, 22, 25-31, 34, 40-46, 54-60, 68, 69
264 <223> OTHER INFORMATION: n = g, a, c or (t/u) M
266 <220> FEATURE:
267 <221> NAME/KEY: misc_feature
268 <222> LOCATION: 5, 18, 67
269 <223> OTHER INFORMATION: r = a or g
271 <220> FEATURE:
272 <221> NAME/KEY: misc_feature
273 <222> LOCATION: 65
274 <223> OTHER INFORMATION: y = c or (t/u) M
276 <400> SEQUENCE: 10
-> 277 nnucruauan nnnnnnnrau anggnnnnn ngunucuacn nnnnnnccgu aaannnnnn 60
278 acuaygrnn 69
280 <210> SEQ ID NO: 11
281 <211> LENGTH: 69
282 <212> TYPE: (RNA)
283 <213> ORGANISM: Artificial Sequence
285 <220> FEATURE:
286 <223> OTHER INFORMATION: Description of Artificial Sequence:/Note =
287 synthetic construct
289 <220> FEATURE:
290 <221> NAME/KEY: misc_feature
291 <222> LOCATION: 1, 2, 10-17, 22, 25-31, 34, 40-46, 54-60, 68, 69
292 <223> OTHER INFORMATION: n = g, a, c or (t/u) M
294 <220> FEATURE:
295 <221> NAME/KEY: misc_feature
296 <222> LOCATION: 5, 18, 67
297 <223> OTHER INFORMATION: r = a or g
299 <220> FEATURE:
300 <221> NAME/KEY: misc_feature
301 <222> LOCATION: 65
302 <223> OTHER INFORMATION: y = c or (t/u) M
304 <400> SEQUENCE: 11
-> 305 nnucruauan nnnnnnnrau anggnnnnn ngunucuacn nnnnnnccgu aaannnnnn 60
306 auuaygrnn 69
308 <210> SEQ ID NO: 12

FyI

The types of errors shown exist throughout
the Sequence Listing. Please check subsequent
sequences for similar errors.

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/669,162A

DATE: 05/07/2004
TIME: 14:10:40

Input Set : A:\250060016U2.txt
Output Set: N:\CRF4\05072004\J669162A.raw

Sequence Note:

None of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> <223> fields of each sequence which presents at least one n or Xaa.

Sequence listing errors:
 J#:3; N Pos. 155,156,157,158,159,160,161,162,163,164,165,166,167,168,169
 J#:3; N Pos. 170,171,172,173,174,175,176,177,178,179,180,181,182,183,184
 J#:3; N Pos. 185,186,187,188,189,190,191,192,193,194,195,196,197,198,199
 J#:3; N Pos. 200,201,202,203,204,205,206,207,208,209,210,211,212,213,214
 J#:3; N Pos. 215,216,217,218,219,220,221,222,223,224,225,226,227,228,229
 J#:3; N Pos. 230,231,232,233,234,235,236,237,238,239,240
 J#:5; N Pos. 39,40,41,42,43,44,45,150,151,152,153,154,155,156
 J#:6; N Pos. 1,5,6,7,8,11,12,18,19,20,24,25,26,29,30,33,34,35,38,40,41,47
 J#:6; N Pos. 50,54,55,56,58,59,60,66,75,76,77,78,79,85,89,93,97
 J#:7; N Pos. 1,2,3,4,5,8,15,17,18,19,20,21,22,23,24,30,31,32,33,34,36,38
 J#:7; N Pos. 39,40,41,42,43,45,46,47,56
 J#:8; N Pos. 11,17,20,25,36,37,46,47,48,58,61,77,78,79
 J#:9; N Pos. 1,7,8,9,18,14,16,18,25,26,32,33,37,39,42,48,50,51,52,53,54
 J#:9; N Pos. 55,62,63,66,67,68,69,71,72,73,75,76,78,79,86
 J#:10; N Pos. 1,2,10,11,12,13,14,15,16,17,22,25,26,27,28,29,30,31,34,40
 J#:10; N Pos. 41,42,43,44,45,46,54,55,56,57,58,59,60,68,69
 J#:11; N Pos. 1,2,10,11,12,13,14,15,16,17,22,25,26,27,28,29,30,31,34,40
 J#:11; N Pos. 41,42,43,44,45,46,54,55,56,57,58,59,60,68,69
 J#:12; N Pos. 1,13,14,15,16,17,18,20,21,26,27,28,29,30,31,32,33,34,35,39
 J#:12; N Pos. 40,41,42,43,44,45,46,47,48,49,50,51,52,53,59,60,61,62,63,64
 J#:12; N Pos. 65,66,67,77,78,79,80,81,82,83,84,85,86,87,88,89,90,91,92,93
 J#:12; N Pos. 94,95,96,97,98,99,100,101,107,108,109,110,111,112,113,114
 J#:12; N Pos. 115,116,117,118,121,122,123,124,125,126,127,128,129,130,131
 J#:12; N Pos. 132,139,145,151
 J#:15; N Pos. 33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52
 J#:15; N Pos. 53,54,55,56,57,58,59,60,61,62,63,64,65,66,67,68,69,70,71,72
 J#:15; N Pos. 73,74,75,76,77,78,79,80,81,82,83
 J#:16; N Pos. 33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52
 J#:16; N Pos. 53,54,55,56,57,58,59,60,61,62,63,64,65,66,67,68,69,70,71,72
 J#:16; N Pos. 73,74,75,76,77,78,79,80,81,82,83
 J#:17; N Pos. 15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34
 J#:17; N Pos. 35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54
 J#:17; N Pos. 55,56,57,58,59,60,61,62,63,64,65,66,67,68,69,70,71,72,73,74
 J#:17; N Pos. 75,76,77,78,79,80,81,82,83,84,85,86,87,88,89,90,91,92,93,94
 J#:17; N Pos. 95,96,97,98,99,100,101,102,103,104,105,106,107,108,109,110
 J#:17; N Pos. 111,112,113,114,115,116,117,118,119,120,121,122,123
 J#:18; N Pos. 1,2,3,4,5,6,7,10,11,12,13,14,15,16,23,25,26,27,28,29,30,31
 J#:18; N Pos. 32,40,41,42,44,46,47,48,49,50,51,53,54,55,64,65,66
 J#:19; N Pos. 12,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,42,43,44
 J#:19; N Pos. 45,46,47,48,49,50,51
 J#:20; N Pos. 12,20,21,22,23,24,25,26,27,28,29
 J#:21; N Pos. 12,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38
 J#:21; N Pos. 39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58
 J#:21; N Pos. 59,60,61,62,63,64,65,66,67,68,69,70,71,72,73,74,75,76,77,78

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/669,162A

DATE: 05/07/2004
TIME: 14:10:40

Input Set : A:\250060016U2.txt
Output Set: N:\CRF4\05072004\J669162A.raw

:#:21; N Pos. 79,89,94
:#:22; N Pos. 19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38
:#:22; N Pos. 39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58
:#:22; N Pos. 59,60,61,62,63,64,65,66,67,68,69,70,71,72,73,74,75,76,77,78
:#:22; N Pos. 79,80,81,82,83,84,85,86,87,88,89,90,91,92,93,94,95,96,97,98
:#:22; N Pos. 99,100,101,102,103,104,105,106,107,108,109,110,111,112,113
:#:22; N Pos. 114,115,116,117,118,119,120,121,122,123,124,125,126,127,128

VERIFICATION SUMMARY
PATENT APPLICATION: US/10/669,162A

DATE: 05/07/2004
TIME: 14:10:40

Input Set : A:\250060016U2.txt
Output Set: N:\CRF4\05072004\J669162A.raw

70 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:120
341 Repeated in SeqNo=3
108 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0
341 Repeated in SeqNo=5
144 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:0
341 Repeated in SeqNo=6
178 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:0
215 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:0
341 Repeated in SeqNo=8
249 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:0
341 Repeated in SeqNo=9
277 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:0
341 Repeated in SeqNo=10
305 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:0
341 Repeated in SeqNo=11
349 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:0
341 Repeated in SeqNo=12
384 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:0
341 Repeated in SeqNo=15
399 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:0
341 Repeated in SeqNo=16
414 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:0
341 Repeated in SeqNo=17
444 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:0
341 Repeated in SeqNo=18
458 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19 after pos.:0
472 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20 after pos.:0
486 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21 after pos.:0
341 Repeated in SeqNo=21
501 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22 after pos.:0
341 Repeated in SeqNo=22
517 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:0
341 Repeated in SeqNo=23
533 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 after pos.:0
341 Repeated in SeqNo=24
548 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25 after pos.:0
341 Repeated in SeqNo=25
563 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26 after pos.:0
341 Repeated in SeqNo=26
578 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27 after pos.:0
341 Repeated in SeqNo=27
594 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:0
341 Repeated in SeqNo=28
509 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29 after pos.:0
341 Repeated in SeqNo=29
525 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30 after pos.:0
341 Repeated in SeqNo=30
541 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31 after pos.:0

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/669,162A

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Input Set : A:\250060016U2.txt

Output Set: N:\CRF4\05072004\J669162A.raw

341 Repeated in SeqNo=31

557 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32 after pos.:0

1713 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:98